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THE METHODOLOGY FOR THE ANALYSIS OF WORKING CAPITAL

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Introduction. Working capital refers to current assets at the disposal of a company that remained after the payment of all short-term financial obligations. It is the capital which is in a constant circulation and movement of the company, therefore it is known as working capital. Working capital is not indicated in the balance sheet, however, bankers, shareholders, investors and other users of analytical information frequently calculate working capital as an indicator of short-term solvency. Its analysis is relevant to all the users of the information as its amount and variation trends allow to judge the financial stability and the business continuity of the company. Therefore, the most prominent specialists in the financial analysis suggest to analyse the companies' financial condition in terms of working capital. This proposal is motivated by the fact that working capital is one of a few indicators that objectively enough defines the company's condition and, in addition, has a significant impact on other financial indicators. However, in the literature of the financial analysis there is no consistent methodology for the analysis of working capital, i.e. a variety of authors provides the calculations and interpretations of only some indicators of working capital.

The object of the research is the working capital.

The research aims at formulating the method for the analysis of working capital.

The methods of the research are the analysis of the scientific literature, techniques of information gathering, comparing, elaborating and summarizing.

The calculation of working capital and the consistency of its analysis. There are two methods to calculate the working capital. By applying the first method, working capital (WC) can be calculated as current assets (CA) minus current liabilities (CL), i. e. $WC = CA - CL$. By applying the second method, working capital can be calculated as the sum of own capital (E) and the long-term liabilities (LL) minus the long-term assets (LA), i. e. $WC = (E + LL) - LA$. The sum of own capital and long-term liabilities comprises a constant (invested) capital (CC). Thus the formula of the working capital can be expressed as follows: $WC = CC - LA$. The first method of calculation of the working capital is commonly known as the calculation from the assets

point of view, while the second – the calculation from the capital point of view. Both methods result in the computing of the same value of the working capital, however, the economic significance is different.

Regardless of the method chosen to calculate the working capital (preferably both), it is important to perform the analysis. Referring to a variety of foreign [1, 2, 3, 4, 5] and Lithuanian [6, 7, 8] authors, the authors of this article propose a coherent method for the analysis of the working capital, consisting of five stages (Fig. 1).

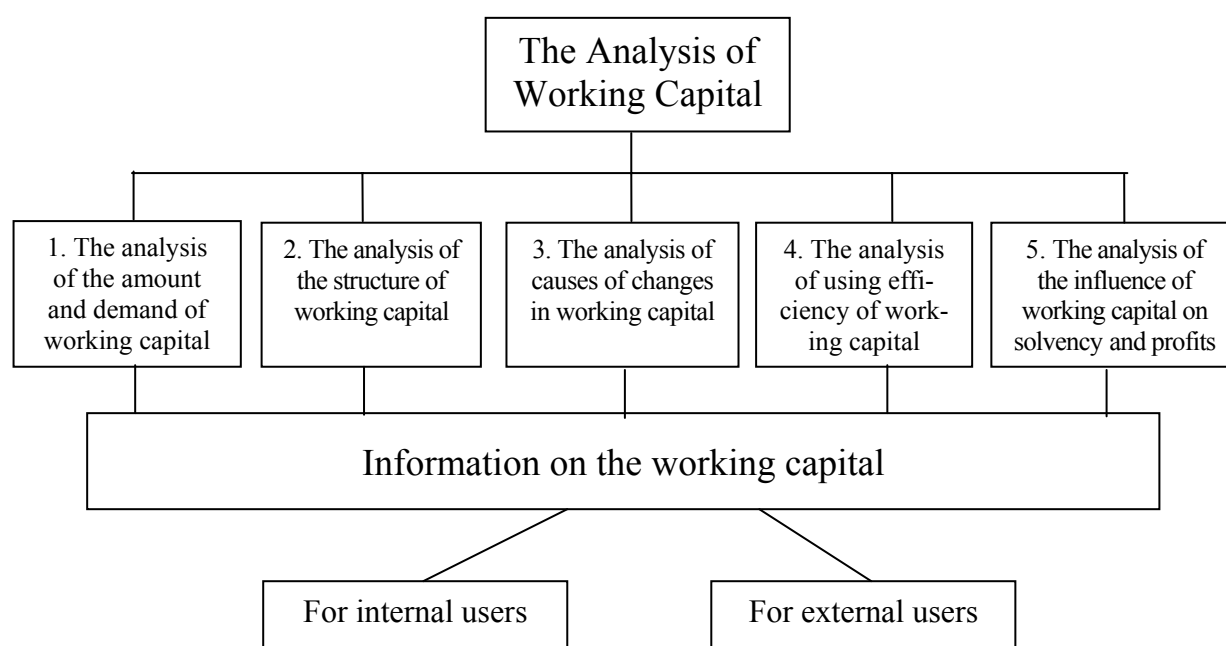


Fig. 1. The consistency of the analysis of working capital

Source: Compiled by the authors.

The analysis of the amount and demand of working capital. The amount of the working capital is a necessary sum of working assets meant for the maintenance of a certain intended level of production and sales. The opportunities of the company to expand the production, to fulfil their obligations and to be competitive depend on the working capital. If the working capital is yearly increasing, the company's financial situation is stable. The working capital is often more important than cash, which is only its constituent element. The higher working capital, the greater probability that the company will be able to successfully function in case of an unstable cash flow.

The value of working capital should be positive, i.e. each company must have a sufficient amount of current assets. Negative working capital indicates that the company may not fulfil its current liabilities. A higher value of this indicator denotes a higher level of company's liquidity. Working capital is considered to be a reserve of liquidity, hedging against unforeseen and unexpected situations. Its greater amount is particularly needed in cases of company's incapability to borrow the funds. The grow-

ing working capital ensures the continuity of the company's activities and the potential to maintain good financial conditions.

One of the most difficult tasks is to perform the analysis of the demand of working capital. While planning the working capital, the company's economists must consider and answer the following questions: what should be the level of the stock; how much cash is needed in a certain period of time; what is the time needed to settle with suppliers; what is the time needed to settle with customers; how rapidly the debts to the bank can be paid, etc. [9, p. 157]. The demand of the working capital depends on the duration of the production cycle, on the turnover of the current assets, and, finally, on the organization of the company's work and the quality of the management system. While planning the demand of the working capital, it is essential to estimate the sources and using of the working capital as accurately as possible.

The analysis of the structure of working capital. The analysis of the structure of working capital enables to estimate the share of the constituent elements of this capital and their impact on the total amount of the working capital. Regular and consistent analysis of the structure of working capital helps the heads of the companies to achieve the optimal level of the available financial resources and their using level. First of all, it is necessary to estimate what portion of the current assets was composed of resources, prepayments and unfinished contracts, the receivables within one year, cash and its equivalents and other current assets.

A particular attention has to be paid to the inventory. It is considered to be useless for the company to store the inventory for several reasons: the risk to lose some inventory (such as raw materials and consumables, unfinished manufactures, completed products, the goods purchased for resale) increases due to the wear, theft, corruption; the expenses of the storage increases; the circulation cycle slows down, the company loses cash money, etc. The changes in the inventory have to be compare with the evolution of sales income: when the amount of sales income is increasing, the turnover of the stock is growing [9, p. 67].

The examination of the amounts, receivable within one year, is important in order to deduce whether there is no delayed debt of the buyer or insolvent customers in this item. The increasing amount of this item is not a satisfactory phenomenon as they indicate the withdrawal of company's funds from the market and hence the contacts with the customers and buyers, which are not sufficiently neat in paying sense.

The analysts should pay attention to cash and the change of cash equivalents. Instead of attempting to accumulate a lot of cash, the company should use it in circulation.

The analysis of current liabilities should seek to deduce the proportion of the long-term debts of the current year, financial debts to suppliers, the delay and other items. If the share of the long-term debts of the current year is decreasing, it indicates the improving settlement of the company with the long-term creditors. If the share of the financial debts does not significantly change over a period of time, it indicates normal relations with creditors.

The analysis of causes of changes in working capital. During the analysis of the working capital, it is essential to identify the underlying reasons of its change within a certain period of time. Initially, the changes in the working capital and its calculating elements are analysed in comparison with previous periods. Experience suggests that the elements of current assets and the elements of current liabilities unequally impact the change in working capital. A particular attention has to be paid to the changes in the inventory. The heads of companies should seek to effectively use some inventory (for instance, raw materials and consumables, unfinished manufactures) in manufacturing and to prevent the overstay of other inventory (such as completed products, the goods purchased for resale) in the warehouses. In addition, it is necessary to identify the reasons of the increase or decrease of the current liabilities: financial debts, debts to suppliers, profits tax liability, work-related liabilities, etc.

Three modes of working capital can be distinguished: increase, decrease and stability.

The increase in working capital. The margin of the company's safety extends if a portion of the working capital is funded from the regular capital. However, it is also essential to check whether the increase in working capital was not related with a sharp increase in long-term and medium-term debts. It is important as the financial expenses increase, the company's financial independence decrease, in general, the production and financial results may disimprove.

The decrease in working capital. It indicates that the margins of the company's safety decrease, the company becomes weaker. At the same time it should be noted that the assets were acquired from the working capital after having fulfilled a new profitable contribution in the capital. It is likely that the financial situation will improve in the future.

Working capital remains unchanged. This mode occurs when the company does not develop activities. In such a case it should be deduced whether this mode is temporary, long-term or related with the termination of capital investments.

The analysis of the efficiency of working capital. In order to estimate the efficiency of working capital it is appropriate to calculate and evaluate various relative indicators. It is believed the ratio of current assets to equity describes best the efficiency of the working capital. It is calculated as follows:

Working capital maneuverability coefficient = $\text{Stocks} / \text{Working capital}$

This ratio shows the amount of working capital "frozen" in the stocks, i. e. immobile share. It is important to seek to make this ratio lower. However, this rule is not applied to branches of activity in which larger and more permanent inventories are necessary, such as a commercial enterprise.

The ratio of the working capital to total assets provides a lot of information

Working capital to total assets = $\text{Working capital} / \text{Total assets}$

The advantage of this indicator is the comparison of different-sized companies. A higher value of this indicator shows a higher level of company's short-term sol-

vency (liquidity), meanwhile the dynamics – an increasing or decreasing possibility that a company is going to bankrupt.

It is also appropriate to calculate the turnover of the working capital:

$$\text{Working capital turnover} = \text{Sales} / \text{Average working capital}$$

This indicator shows how much turnovers the working capital commits during the reporting period. If this ratio is low or a decreasing trend is observed, it may imply the lack of working capital. Valid provision is recognized: the higher ratio of the working capital turnover, the better.

In order to evaluate the absolute value of working capital, it is proposed to calculate and evaluate the ratio of constant working capital as follows:

$$\text{The ratio of constant working capital} = \text{Constant capital} / \text{Long term assets}$$

or

$$\text{The ratio of constant working capital} = \text{Equity} + \text{Long-term liabilities} / \text{Long term assets}$$

This ratio shows how the working capital was effected by the main sources of its financing: equity and long-term liabilities. While calculating and analysis the working capital on the capital accounting point of view, it is possible not only to find out how the equity is used in the company's activities, but also to provide the techniques of raising the working capital. Firstly, it is possible to increase the working capital by increasing the equity (for example, by issuing new shares) or by increasing the amount of long-term liabilities (with the agreement of creditors to postpone the period of the payment of some indebtedness). In addition, it is also possible to dispose long term assets unnecessary to the company's activity, and to purchase the necessary short-term assets, which would allow the company to earn more profits.

The analysis of the influence of working capital on short-term solvency and profits. The amount of working capital has a direct impact on the short-term solvency. The solvency risk at high, medium and low levels of working capital is demonstrated in Figure 2.

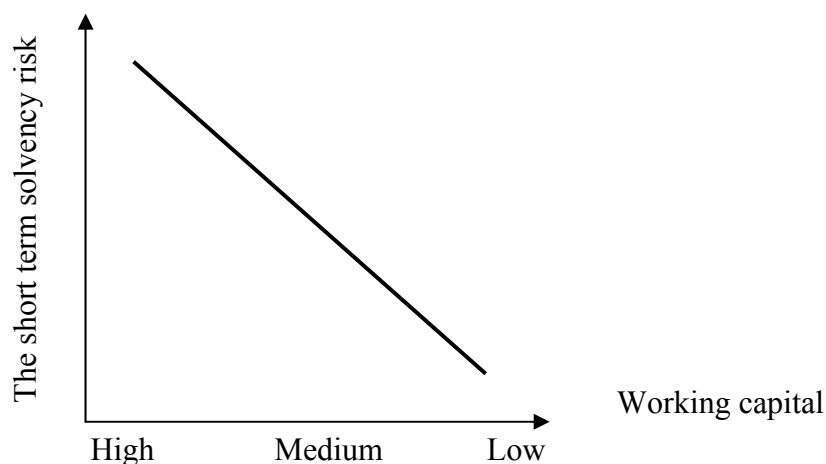


Fig. 2. The short term solvency risk and the amount of working capital

According to Figure 2, when the working capital is increasing, the short term solvency risk is decreasing. Apparently, the working capital relationship is more complex than shown in the figure. The problem is that different short-term assets have different impact on solvency. However, it can still be stated that as much as the current assets exceeds current liabilities, i.e. as much as the working capital is higher, the lower is the risk of solvency [6, p. 52].

Completely different relationship is observed between the working capital and profit (Fig. 3).

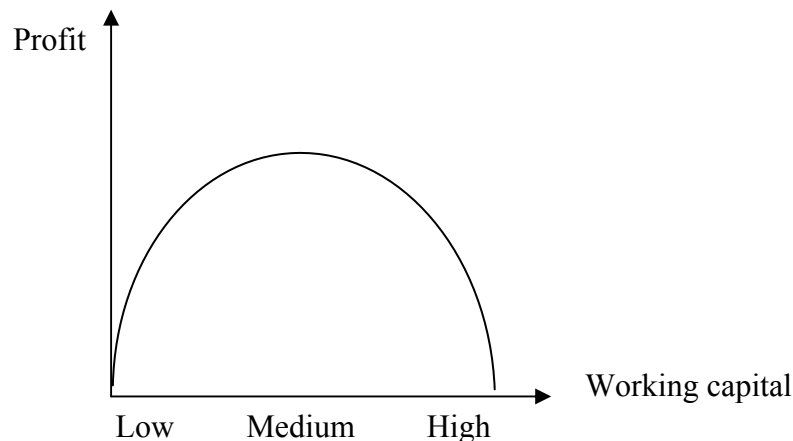


Fig. 3. The relation between working capital and profit

At low levels of working capital, decent manufacturing operations of the companies' cannot be ensured, therefore periodical intermissions of work occur which cause solvency problems and reduces profit. When the level of working capital increases, the company is capable to receive the maximum profit [7, p. 68]. However, at a high level of working capital, a certain situation may emerge when the company has short-term assets temporarily not engaged in the production; the company suffers losses, and hence the profit reduces. Thus, the policy of working capital management must be designed so as to guarantee the effective functioning of the company, to reduce solvency risk and to ensure better returns.

Conclusions. The financial condition, operating results, competitiveness in the market, business continuity and perspectives of the company depend on the working capital. Therefore it is very important to be aware of the true condition of the working capital, which is accessible only through its consistent analysis.

We suggest to perform the analysis of working capital in the following order: 1) the analysis of the amount and demand of working capital; 2) the analysis of the structure of working capital; 3) the analysis of causes of changes in working capital; 4) the analysis of the efficiency of working capital; 5) the analysis of the influence of working capital on solvency and profit. This study may be used for different purposes and needs of the internal and external users of information.

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INHERENT RISK AND ITS EVALUATION

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Introduction. The audit of financial statements is identified as one of the most risky and liable activities in modern business background. The main purpose of it is to express an independent opinion on the information, contained in financial statements, certainty and fairness. Auditors sometimes fail to achieve this goal because they are unable to assess audit risks objectively, which has a direct impact on the further course of the audit and therefore the planning of the audit procedures is done not properly for prevention of disclosure of misstated material of the financial statements.

An auditor should pay more attention to the emergence of audit risk determinants and find appropriate ways to reduce them. Until now, insufficient attention of audit risk components is devoted in the literature, where one of the most important of them is the inherent risk analysis, together with the factors determining the occurrence of inherent risk.

The object of research – inherent risk assessment.

The aim of research – to analyze the inherent risk and its implications for evaluation, to trace the factors of inherent risk and to discuss factors affecting the performance of an auditor during the evaluation of the assessment of risk.